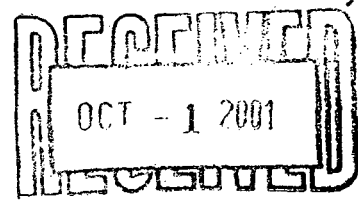




State of New Jersey

Department of Environmental Protection



Permits

DONALD T. DiFRANCESCO
Acting Governor

Robert C. Shinn, Jr.
Commissioner

SDMS Document



128898

September 27, 2001

Chemsol Inc.
C/O William J. Lee
186 Center Street, Suite 290
Clinton, NJ 08809

Attn: Mr. William J. Lee

Re: Stream Encroachment Permit Equivalency File No. 1217-93-0001.4
Freshwater Wetlands Permit Equivalency File No. 1217-93-0001.3
Chemsol Inc. Superfund Site, Lots 1.01 & 1.02 of Block 229.1,
Piscataway Township, Middlesex County, New Jersey

Dear Mr. Lee:

This is in reference to the above-mentioned project to excavate contaminated soils and sediments, and to remove an existing culvert on tributaries to Bound Brook, on a site located at the corners of Fleming and Hanover Streets, within Lots 1.01 and 1.02 Block 229.1, in Piscataway Township, Middlesex County. This permit also authorizes activity involving approximately 4.74 acres of wetlands, State open waters and top of bank area that will be temporarily impacted during remedial activities, and 0.14 of an acre of wetlands that will be permanently impacted during the construction of the access road. Total wetland disturbance (temporary & permanent) associated with the remedial clean up is 4.88 acres.

In addition, 0.020 of an acre of State open waters (0.016 acres & 0.004 acres) will be disturbed for the placement of two (2) culverts within stream 1-A in conjunction with the construction of an access road. These disturbances will not require mitigation.

The project complies with both the Flood Hazard Area Control Act Rules N.J.A.C.7:13-1.1 and freshwater Wetlands Permit Act Rules N.J.A.C.7:7A and therefore a Permit Equivalency is hereby issued with the following conditions:

1. An approved Remedial Action Work Plan (RAWP) must be submitted to the Department prior to construction.
2. Profiles of Stream 1-B and the Northern Ditch shall be surveyed and field verified to establish final restoration grades and elevations. Profiles and photos must be submitted to the Department prior to construction.
3. All contaminated materials must be disposed of in a lawful manner at a licensed disposal/recycling facility.

4. Riprap must be placed / shaped / imbedded into the channel in accordance with the culvert placement and existing stream bottom inverts / cross-sectional profile in order to allow for low flow passage through the entire work area.
5. In order to protect the warmwater fish within Pumpkin Patch Brook, any proposed grading or construction activities within the banks of this or any other stream on site are prohibited between 5/1 through 6/30 of each year. In addition, any activity within the 100 year flood plain or flood hazard area of this watercourse which could introduce sediment into said stream or could cause an increase in the natural level of turbidity is also prohibited during this period. The Department reserves the right to suspend all regulated activities on site should it be determined that the applicant has not taken proper precautions to ensure continuous compliance with this condition.
6. The applicant must mitigate for the loss of 4.88 acres (4.74 acres temporary/ 0.14 acres permanent) of State open waters, emergent, scrub/shrub and forested wetlands through an on-site restoration and creation project; 4.74 acres of restoration mitigation at a ratio of 1:1 and 0.28 of an acre of creation mitigation at a ratio of 2:1. The ratio of wetlands enhanced to wetlands disturbed shall be sufficient to replace loss of ecological value from the permitted project and shall be approved by the Program.
7. Restoration actions must be performed within six months of the commencement of the regulated activity in order to reverse or remedy the effects of the activity on the wetland and to restore the site to preactivity condition. If restoration actions are performed more than six months after the commencement of the regulated activity which disturbed the wetland, these actions will no longer be considered restoration, but will be considered creation, and will be governed by the provisions of N.J.S.A. 13:9B-1 et seq., and shall meet the standards of N.J.A.C. 7:7A.
8. The permittee shall complete and sign the Department approved conservation restriction for the mitigation site (copy attached). The restriction shall be included on the deed, and recorded in the office of the County Clerk (the Registrar of Deeds and Mortgages in some counties), in the county wherein the lands of the mitigation project are located, within 10 days of approval of the wetland mitigation proposal.
9. The permittee shall notify the Land Use Regulation Program, in writing, at least 14 days in advance of the start of construction of the wetland mitigation project for an on-site pre-construction meeting between the permittee, the contractor, the consultant and the Program.
10. The mitigation designer must be present during critical stages of construction of the mitigation project this includes but is not limited to herbicide applications, sub-grade inspection, final grade inspection, and planting inspection.
11. Immediately following final grading of the site, a disc must be run over the site to eliminate compaction. Mitigation designer must be present to oversee this phase of the

project and confirm with the Department this activity has occurred prior to planting of the site.

12. Immediately following the final grading of the mitigation site and prior to planting, the permittee shall notify the Program for a post-grading construction meeting between the permittee, contractor, consultant and the Program.
13. Immediately following final grading and planting of the wetland mitigation project, the permittee shall notify the Land Use Regulation Program, in writing that the construction of the mitigation project has been completed in accordance with the approved plan. In addition to the notice, the permittee shall submit as built plans of the site and photos with a photo location map of the completed project.
14. The permittee shall post the mitigation area with several permanent signs, which identify the site as a wetland mitigation project and that mowing, cutting, dumping and draining of the property is prohibited. The sign must also state the name of the engineering/environmental firm that designed and constructed the mitigation site with a phone number. In addition, the permittee shall visibly mark/staked (oak stakes) the extent of the wetland mitigation area and ensure the stakes remain that way for the entire monitoring period with the location of those stakes shown on the as built plan.
15. The permittee shall monitor the wetland mitigation project for 5 full growing seasons if it is a proposed forested wetland and for 3 full growing seasons for a scrub/shrub or emergent wetland after the mitigation project has been constructed. The permittee shall submit monitoring reports to the Land Use Regulation Program no later than November 15th of each monitoring year (All monitoring report must include the standard items identified in the attachment and the information requested below).
16. Throughout the monitoring period, the permittee must eliminate either through hand-pulling, application of a pesticide or other Department approved method any occurrence of an invasive/noxious species on the mitigation site.
17. All monitoring report will include all the following information (see attached monitoring report checklist):
 - i. The monitoring reports submitted prior to the final one must include documentation that it is anticipated, based on field data, that the goals of the wetland mitigation project including the transition area, as stated in the approved wetland mitigation proposal and the permit will be satisfied. If the permittee is finding problems with the mitigation project and does not anticipate the site will be a full success then recommendations on how to rectify the problems must be included in the report with a time frame in which they will be completed. The final monitoring report must include documentation to demonstrate that the goals of the wetland mitigation project including the required transition area, as stated in the approved wetland mitigation proposal and the permit, has been satisfied.

Documentation for this report will also include a field wetland delineation of the wetland mitigation project based on techniques as specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989);

ii. The monitoring reports submitted prior to the final one must include documentation that the site is progressing towards the 85 percent survival and percent aerial coverage of mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan. If the permittee is finding problems with the mitigation project and does not anticipate the site will or has achieved the 85 percent survival and 85 percent areal coverage criteria then recommendations on how to rectify the problems must be included in the report with a time frame in which they will be completed. The final monitoring report must include documentation the site has an 85 percent survival and 85 percent areal coverage of the mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan;

iii. Documentation to demonstrate the site is less than 10 percent occupied by invasive or noxious species such as but not limited to *Phalaris arundinacea* (Reed canary grass), *Phragmites australis* (Common reed grass), *Pueraria lobata* (Kudzu), *Typha latifolia* (Broad-leaved cattail), *Typha angustifolia* (Narrowed leaved cattail), *Lythrum salicaria* (Purple loosestrife), *Ailanthus altissima* (Tree-of-heaven), *Berberis thunbergii* (Japanese barberry), *Berberis vulgaris* (Common barberry), *Elaeagnus angustifolia* (Russian olive), *Elaeagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet) and *Rosa multiflora* (Multiflora rose). If the site is more than 10 percent occupied by invasive or noxious species then the monitoring report must include a proposed remediation plan and a time frame in which it will be completed.

iv. Demonstrate through soil borings and a soil test that a minimum six inch layer of top-soil or A-Horizon was used/retained on the mitigation site and if the natural top-soil was used at least 8% organic carbon content (by weight) was incorporated into the A-horizon for sandy soil and for all other soil types 12% organic content or if manmade top soil was used it consisted of equal volumes of organic and mineral materials. If the site fails to meet this standard the monitoring report must include a proposed remediation plan and a time frame in which it will be completed. The final monitoring report must include documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil; and

v. The monitoring reports submitted prior to the final report must include documentation that demonstrates the proposed hydrologic regime as specified in the mitigation proposal appears to be met. If the permittee is finding problems with the mitigation project and does not anticipate the proposed hydrologic regime will be or has not been met then recommendations on how to rectify the problem must be included in the report along with a time frame within which it will be completed. The final monitoring report must include documentation that demonstrates that the proposed hydrologic regime as specified in the mitigation

proposal, which proves the mitigation site is a wetland has been satisfied. The documentation shall include when appropriate monitoring well data, stream gauge data, photographs and field observation notes collected throughout the monitoring period.

18. Once the required monitoring period has expired and the permittee has submitted the final monitoring report, the Program will make the finding that the mitigation project is either a success or a failure. This mitigation project will be considered successful if the permittee demonstrates all of the following:

i. That the goals of the wetland mitigation project including the required transition area, as stated in the approved wetland mitigation proposal and the permit, has been satisfied. The permittee must submit a field wetland delineation of the wetland mitigation project based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989) which shows acres of emergent/scrub shrub/forested wetlands have been created/restored/enhanced;

ii. The site has an 85 percent survival and 85 percent areal coverage of the mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan;

iii. The site is less than 10 percent occupied by invasive or noxious species such as but not limited to *Phalaris arundinacea* (Reed canary grass), *Phragmites australis* (Common reed grass), *Pueraria montana* (Kudzu), *Typha latifolia* (Broad-leaved cattail), *Typha angustifolia* (Narrowed leaved cattail), *Lythrum salicaria* (Purple loosestrife), *Ailanthus altissima* (Tree-of-heaven), *Berberis thunbergi* (Japanese barberry), *Berberis vulgaris* (Common barberry), *Elaeagnus angustifolia* (Russian olive), *Elaeagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet) and *Rosa multiflora* (Multiflora rose);

iv. The site contains hydric soils or there is evidence of reduction occurring in the soil; and,

v. That the proposed hydrologic regime as specified in the mitigation proposal, which proves the mitigation site is a wetland has been satisfied. The documentation shall include when appropriate monitoring well data, stream gauge data, photographs and field observation notes collected throughout the monitoring period.

19. If the mitigation project is considered a failure, the permittee is required to submit a revised mitigation plan to rectify the wetland mitigation site. The plan shall be submitted within 60 days of receipt of the letter from the Program indicating the wetland mitigation project was a failure. The financial surety, if required, will not be released by the Program until such time that the permittee satisfies the success criteria as stipulated in item (p).

20. All excavated material and dredged spoils must be disposed of in a lawful manner outside of any regulated floodplain, open water, freshwater wetlands or adjacent transition areas, and in such a way as to not interfere with the positive drainage of the receiving area.
21. The drawings approved with this Permit Equivalency are five (5) sheets prepared by Richard A. Masters, entitled:

"CHEMSOL, INC. PISCATAWAY, NEW JERSEY EPA PROJECT NO. NJD 980528889",

"WETLAND MITIGATION PLAN WETLAND IMPACTS", Sheet 1 of 5, dated 5/31/01, and unrevised,

"WETLAND MITIGATION PLAN WETLAND RESTORATION PLAN", Sheet 2 of 5, dated 5/30/01, and unrevised,

"WETLAND MITIGATION PLAN PLANTING PLAN", Sheet 3 of 5, dated April 9, 2001, and unrevised,

"WETLAND MITIGATION PLAN TYPICAL SECTION AND NOTES", Sheet 4 of 5, dated 4/11/01, and unrevised,

"WETLAND MITIGATION PLAN STREAM PROFILES AND RESTORATION DETAILS", Sheet 5 of 5, dated 7/25/01, and unrevised,

Also approved are seven (7) sheets prepared by Gary J. Dipippo, dated March 30, 2001, last revised August 8, 2001, unless otherwise noted, entitled:

"CHEMSOL, INC. PISCATAWAY, NEW JERSEY EPA PROJECT NO. NJD 980528889",

"EXISTING SITE CONDITIONS", Sheet 1 of 8, last revised 4/18/01,

"SITE ACCESS/TRAFFIC CONTROL PLAN", Sheet 2 of 8, last revised 4/18/01,

"EXCAVATION PLAN", Sheet 4 of 8,

"RESORATION PLAN", Sheet 5 of 8,

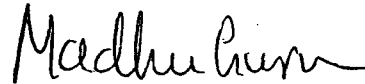
"SOIL EROSION AND SEDIMENT CONTROL PLAN", Sheet 6 of 8

"DETAILS", Sheet 7 of 8, last revised 8/9/01,

"EXISTING STREAM 1-B CROSS-SECTIONS", Sheet Unnumbered, dated
September 19, 2001

This letter is valid for five years from the date of this letter. Should you have any questions, please contact Damian Friebe at (609) 984-0194.

Very truly yours,



Madhu Guru, PE
Section Chief
Northwest and Central Engineering

C: Township of Piscataway and Construction Official
Middlesex County Engineer
Chemsol Inc.
Virginia KopKash